Chinese Government Railways

Peking-Mukden Line.

Report for the Year ended 31st December, 1912,
being the First Year of the Chinese Republic.

Published for circulation by order of the Directors.

京奉鐵路

報告冊

中華民國元年

CHINESE GOVERNMENT RAILWAYS.
Peking-Mukden Line.

General Report.

As will be seen from the above heading, the designation of the Railway has been changed. The old style of Imperial Railways of North China has given place to the new name of Chinese Government Railways, Peking-Mukden Line. So far, the change is principally one of name, for the administration of the Director continues, as before, and remains under the control of the Board of Posts and Communications in Peking.

From the beginning of the Revolution and before the creation of a form of Republic Government, the country was in a chaotic state, and for a time railway operations were carried on only at great personal risk and danger. In consequence, the loss sustained by this line was considerable. After the historic change had been successfully made and although order had been somewhat restored in the country, Manchuria was visited with famine, and inundations broke out in the Province of Chihli, resulting in a general depression of trade throughout this part of the country. The traffic was then so stagnant that all hope was almost given over of being able to bring the earnings to the usual figures of previous years, but thanks to the untiring efforts and energy of the entire staff, on the general revival of trade, an unprecedented result was obtained. Besides grain, the earnings from coal traffic and salt show most notable increases.

The traffic earnings for 1912 are the highest on record for this railway.

The results of the year's working are compared with those of the previous twelve months in the columns below :—

	1911	1912
	$	$
Earnings	11,668,627.89	13,183,638.51
Working Expenses	3,651,132.53	3,820,657.23
Balance after paying Working Expenses	8,017,495.36	9,362,981.28
Ratio of Working Expenses to Earnings	31.3%	28.9%

Mileage.—The mileage open to traffic is 605.76 miles.

Loans.—On 1st August, 1912, the Imperial Chinese Railways 5% Gold Loan of 1899 was reduced by the amount of the Eighth Drawing of £57,500 to £1,840,000.

The service of the Gold Loan of the South Manchuria Railway has also been duly met.

Exchange.—The monthly remittances to London in settlement of Loan service obligations were made at the average rate of 2/10⁵/₈ per Tientsin Tael.

Staff.—At the close of a momentous year, the Director gladly avails himself of this opportunity to thank all grades of the staff for their loyal devotion to duty and hearty cooperation in the service.

Li Tsoi-Chee

Managing Director.

CHINESE GOVERNMENT RAILWAYS.
Peking-Mukden Line

STATEMENT OF ACCOUNTS
FOR THE YEAR ENDED 31st DECEMBER, 1912.

No. 1 Capital Authorised and Created.

DETAILS	Capital Authorised			Capital Created			Balance		
	Stock and Shares	Loans	Total	Stock and Shares	Loans	Total	Stock and Shares	Loans	Total
	$	$	$	$	$	$	$	$	$
Chinese Government and Chinese Shareholders. .	21,994,428.57	—	21,994,428.57	21,994,428.57	—	21,994,428.57			
Under Loan Agreement 1899, £2,300,000	—	27,600,000.00	27,600,000.00	—	27,600,000.00	27,600,000.00			
Under Japanese Loan Agreements, South Manchuria Rly. Loan, 1909, Gold Yen 320,000 . . .	—	377,142.86	377,142.86	—	377,142.86	377,142.86			
$	21,994,428.57	27,977,142.86	49,971,571.43	21,994,428.57	27,977,142.86	49,971,571.43			

No. 2 Stock and Share Capital Created Showing Proportion Issued.

	Amount Created	Amount Issued	Amount Unissued
	$	$	$
Chinese Government and Chinese Shareholders	21,994,428.57	21,994,428.57	—
$	21,994,428.57	21,994,428.57	—

No. 3 Capital Raised by Debenture Stock.

		$
Chinese Government Peking-Mukden 5% Railway Loan formerly called Imperial Chinese 5% Railway Loan, 1899 (original amount of Loan £ 2,300,000).		
Existing at 31st December, 1911	£ 1,897,500	22,770,000
Bonds of Eighth Drawing paid off	57,500	690,000
Existing at 31st December, 1912	£ 1,840,000	22,080,000
Of which there was invested in the Hongkong & Shanghai Bank, London, at 31st December, 1911	£ 85,251.0.9	1,023,012.48
Less Withdrawals	£ 40,255.5.4	483,063.20
Leaving invested in the Hongkong & Shanghai Bank, London, at 31st December, 1912	£ 44,995.15.5	$ 539,949.28

South Manchuria Railway Loan, 1909 (original amount of Loan G. Yen 320,000.00).

Existing at 31st December, 1912 . . . . . G. Yen 266,666.70

No. 4 Receipts and Expenditure on Capital Account.

Dr. *Cr.*

	Total to 31st Dec. 1911	Amount expended in Year 1912	Total to 31st Dec. 1912		Total to 31st Dec. 1911	During Year 1912	Total to 31st Dec. 1912
To Expenditure	$	$	$	**By Receipts**	$	$	$
Lines open for Traffic . .	47,245,485.01	1,221.46	47,246,706.47	Shares	21,994,428.57	—	21,994,428.57
Authorised by High Court of Chancery	1,849,711.38	538,677.80	2,388,389.18	Debenture Stock. . . .	27,600,000.00	—	27,600,000.00
New Steamer	336,475.78	—	336,475.78	South Manchuria Rly.Loan	377,142.86	—	377,142.86
$	49,431,672.17	539,899.26	49,971,571.43				
Balance			Nil				
			$ 49,971,571.43				$ 49,971,571.43

No. 5 Details of Expenditure on Capital Account.

Rolling Stock		413,274.94
Tongshan Works		47,140.04
Shanhaikwan Bridge Works		6,351.44
New Head Office Buildings		5,127.83
Stations, Yards and Sidings		67,536.44
Bridges		468.57
	$	539,899.26

No. 6 Expenditure on Capital Works paid for from Revenue.

Betterments.		
Buildings at Chien Yang Men Station, Peking		26,607.92
Flood protection works in Hsin Min Fu district		65,729 74
Railway Extension to Mukden City		89,810.63
Locomotive Sheds		95,066.82
Staff Quarters		23,280.92
Miscellaneous		74,078.25
Expended during Current Year		374,574.28
Expended in Previous Years		8,983,970.27
	$	9,358,544.55

No. 7 Revenue Account

Dr. *Cr.*

To Maintenance of Way, Works and Stations as per Abstract A	969,948.83		By Earnings:	
„ Locomotive, Carriage and Wagon Expenses as per Abstract B	1,796,162.04		Passengers	5,257,591.89
„ Traffic Expenses as per Abstract D.	511,345.46		Goods	6,850,353.37
„ General Charges „ „ E.	543,200.90		Military Traffic	77,921.59
		3,820,657.23	Miscellaneous Receipts	665,957.03
„ Balance carried to Net Revenue Account		9,362,981.28	Chinese Government Traffic	331,814.63
	$	13,183,638.51		$ 13,183,638.51

No. 8 Net Revenue Account

Dr. *Cr.*

To Debenture Loan, Eighth instalment repaid	690,000.00	By Balance forward from last year	5,477,242.1
„ „ „ Interest	929,383.05	„ Balance transferred from Revenue Account	9,362,981.28
„ Chinese Shares, Interest	3.360.59		
„ S.M.R. Loan, part capital repaid	18,222.21		
„ „ „ , Interest	14,355.16		
„ Paid to Chinese Government	6,320,263.31		
„ Shipping Department	39,230.24		
„ Tongshan College, Upkeep	72,328.72		
„ Bonus to Employees	182,107.51		
„ Betterments, being amount taken from Revenue for Capital Works	374,574.28		
„ Extraordinary repairs	84,751.91		
„ Balance	6,111,646.42		
	$ 14,840,223.40		$ 14,840,223.

No. 9 General Balance Sheet

Dr.			Cr.	
Capital Account, Balance per No. 4	Nil	Hongkong and Shanghai Bank, London		
Salaries and Wages due	165,693.94	Loan Funds, on Deposit Receipt £ 30,000		
Sundry Creditors	86,698.45	Loan Funds, on Current Account	14,935.15.5	539,946.26
B.R.A. Balance taken over	3,293.107 44	Revenue Funds, on Deposit Rect	35,000	
Net Revenue A/c. Balance at Credit per No. 8	6,111,646.42	Revenue Funds, on Current Account "A"	33,465.16.9	821,560.04
		To meet repayment of Loan Capital		229,716.47
		Cash with foreign Banks in China		
		On Deposit Receipt	$ 1,495,714.29	
		On Current Account	1,283,548.89	2,779,263.18
		Cash on hand in Head Office		280,769.80
		Stores		2,847,320.49
		Investments		1,199,289.09
		Traffic Accounts due to the Railway		670,219.48
		Other Accounts due to the Railway		166,075.09
		Accounts due by other Railways		122,953.33
	$ 9,657,146.25		$	9,657,146.25

Wm. Henderson, C.A.,
Chief Accountant.

ABSTRACTS.

A. Maintenance of Way, Works and Stations.

Year ending 31st December, 1912			Year ending 31st December, 1911	
	166,506.97	Salaries, Office Expenses and General Superintendence		191,693.94
		Maintenance and Renewal of Permanent Way:—		
323,153.13		Wages	329,974.67	
326,710.27	649,863.40	Materials	283,969.40	613,944.07
		Repairs of Bridges.		
16,146.02		Wages	13,432.65	
25,881.54	42,027.56	Materials	20,197.26	33,629.91
	111,460.90	**Repairs of Stations and Buildings.**		90,763.63
$	969,948.83		$	930,021.55

B. & C. Locomotive Power and Rolling Stock Repairs.

Year ending 31st December 1912			Year ending 31st December, 1911	
	156,323.38	Salaries, Office Expenses and General Superintendence		157,199.29
		Running Expenses		
164,579.43		Wages connected with working Locomotive Engines	153,101.77	
476,790.58		Coal	438,469.72	
52,473.05		Water	46,170.46	
77,741.39	771,584.40	Oil, Tallow and other Stores	66,342.09	703,884.04
		Maintenance and Renewal of Locomotives and Machinery:—		
341,583.45		Wages	311,673.83	
132,528.76	474,112.21	Materials	99,723.04	411,396.87
		Repairs and Renewals of Cars:—		
		Coaching Vehicles:		
94,403.73		Wages	81,297.64	
58,631.95	153,035.68	Materials	59,124.33	140,421.97
		Goods Vehicles:		
94,374.82		Wages	71,136.66	
90,154.43	184,529.25	Materials	91,868.81	163,005.47
	44,612.68	Cleaning Carriages and Oiling		42,004.48
	1,784,207.60			1,617,712.12
	11,954.44	Steam Ferry at Newchwang		11,238.51
$	1,796,162.04		$	1,628,950.63

D. Traffic Expenses.

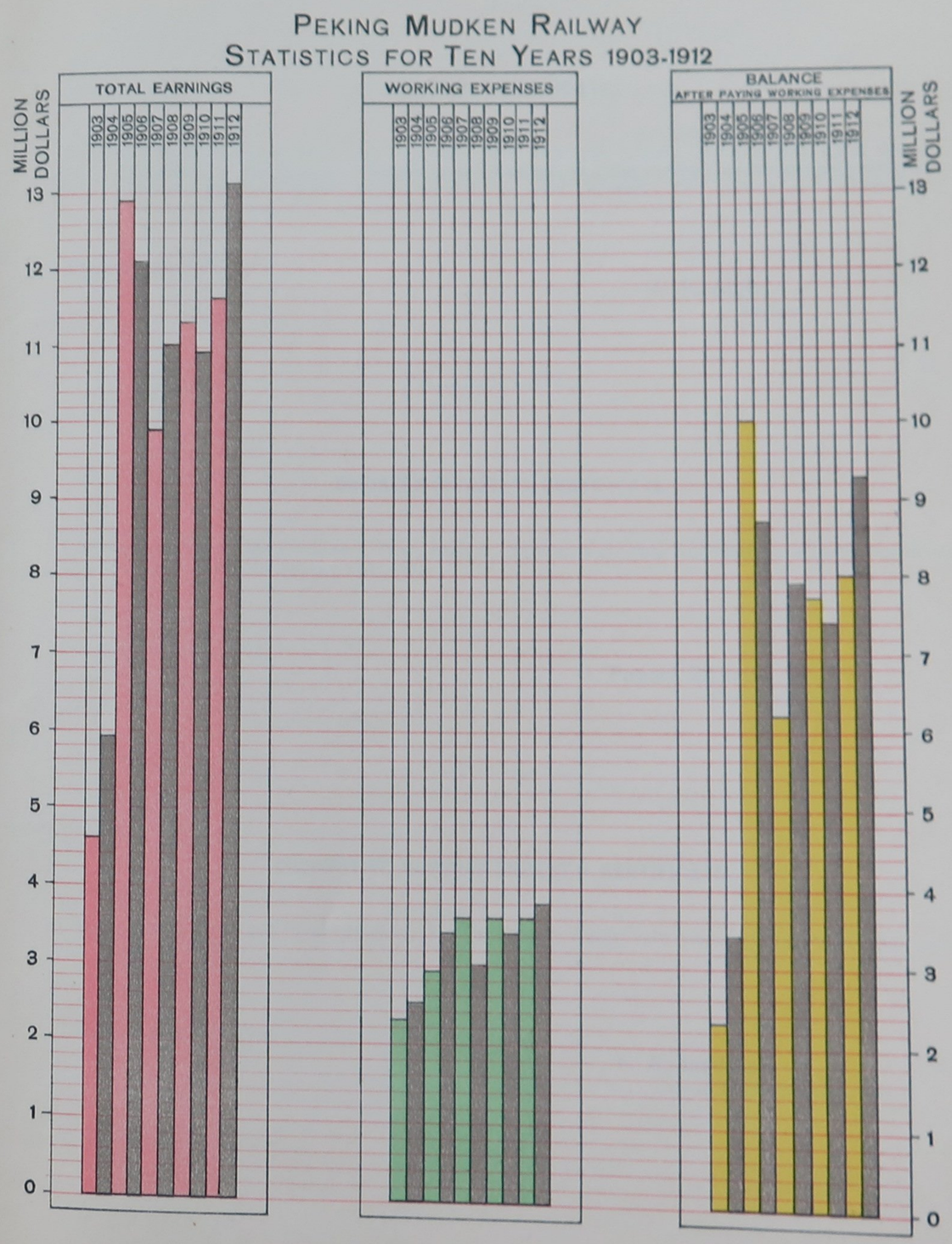
Year ending 31st December, 1912			Year ending 31st December, 1911	
$	$		$	$
97,732.01		General Superintendence	95,290.60	
252,402.86		Wages of Station Staff	223,268.12	
74,043.76		Wages of Train Staff	62,180.45	
77,218.85		Lighting and Small Stores	57,836.35	
.12		Wagon Covers, Ropes, etc.	26.89	
9,947.86		Station Fittings and Furniture	7,022.85	
	511,345.46			445,625.26

E. General Charges.

Year ending 31st December, 1912			Year ending 31st December, 1911	
$	$		$	$
254,226.56		General Superintendence	250,502.31	
70,610.56		Accountant's Department	68,106.96	
79,775.01		Stores Department	77,064.89	
42,399.97		Medical Department	100,957.40	
6,261.95		Rents of Buildings and Lands	11,287.52	
97,949.40		Police	111,765.52	
156,564.69		Telegraph Department	151,989.01	
80,687.65		Stationery and Printing	58,157.73	
4,031.19		Compensation	3,874.42	
58,434.96		Sundries	35,639.47	
850,941.94			869,345.23	
Cr. 307,741.04		Interest, &c.	Cr. 222,950.14	
	543,200.90			646,395.09

EARNINGS.

Year ending 31st December, 1912			Year ending 31st December, 1911	
$	$		$	$
5,257,591.89		Passengers	4,336,997.08	
6,850,353.37		Goods	5,931,056.62	
77,921.59		Military Traffic	53,092.51	
665,957.03		Miscellaneous Receipts	399,094.18	
331,814.63		Chinese Government Traffic	948,387.50	
	13,183,638.51			11,668,627.89



AUDITOR'S CERTIFICATE.

The accounts for the year ended 31st December, 1912, as stated, contain, in my opinion, a full and true statement of the financial condition of the Railway, and the revenue has, in my judgment, been charged with all expenses which ought to be paid thereout. The interest and redemption of the Loans during the year have been fully met.

Tientsin, 12th Feb. 1913.

A. F. Algie,
Auditor.

ENGINEER-IN-CHIEF'S CERTIFICATE.

I hereby certify that the Permanent Way, Bridges, Stations and other Buildings have been maintained in good order during the year 1912.

Tientsin, 30th Jan. 1913.

D. Poyntz Ricketts,
Engineer-in-Chief.

LOCOMOTIVE SUPERINTENDENT'S CERTIFICATE.

I hereby certify that the Plant, Engines, Machinery and Tools have been maintained in good repair during 1912.

Tongshan, 31st Dec. 1912.

F. A. Jamieson,
Loco & Works Superintendent.

REPORT ON PERMANENT WAY DEPARTMENT.

Miles of Main Line Track			605.760 Miles
Miles of Sidings, permanent	150.662		
temporary	8.312	Total	158.974 "
Increase of Main Line			nil. "
Increase of Sidings, permanent	3.018		
temporary	0.532	Total	3.550 "

New sleepers put in for maintenance
(a) 8 ft. sleepers . . . . . 221,567.
(b) Crossing timbers . . . . . 2,601.

Rails changed.

128 Old section 60 lbs. broken or defective.
19 New section 60 lbs. " " "
11 Standard 85 lbs. " " "
1 85 lbs. Hanyang " " "
1 Japanese 60 lbs. " " "
385 ft. of old section 60 lb. track replaced by new section 60 lb.
550 ft. of worn 85 lb track relaid with new 85 lb.

Fangs of ballast used for maintenance . . . . . 16,139.
Fangs of ballast used for new work . . . . . 8,356.
Floor ties renewed . . . . . 4,776.

Probable renewals for next year.

(a) 8 ft. sleepers . . . . . 266,000.
(b) Crossing timbers . . . . . 3,960.
(c) Floor ties . . . . . 7,100.

In connection with track renewals it is to be remembered that our track is laid with 85 lb. rails from Peking to Tongshan and from thence to Mukden and Yinkow we only have 60 lb. rails. This difference in weight and strength of rail on the main line causes serious difficulties in the economical working of our traffic, chiefly in restricting the weight of through trains to the capacity of the engines on the light rail. It also limits our car axle load for the whole line and it also seriously interferes with schemes for heating our trains from the locomotives.

It is therefore strongly recommended that the line between Tongshan and Mukden be relaid with 85 lb. rails at an early date, and that the first section of 95 miles between Tongshan and Shan-hai-kuan be undertaken next year—1913.

New bridges completed:—

Bridge No. 141.—One concrete pier built to replace the old one which was blown up and 2 new girders erected to replace damaged ones.
Bridge No. 275.—One span added and bridge converted into a reinforced slab top.
Bridge No. 58 (Hsinminfu line) 17 spans of 30 ft.
Bridge No. 61 (do) 2—20 ft. spans added.
Bridge No. 61a (do) 2—20 ft. spans.
Fangs of rubble used for protective work . . . . . 12,825 fangs

Probable extra bridge Work etc. necessary to cope with floods.

Re-forming and pitching part of bank and raising part of track between Yangtsun and Lofah . . . . . .
Bridge No. 52. Converting timber piers to concrete . . . . . .
Liu Ho dams, probable extension . . . . . .

Fangs of Earthwork executed.

(a) New work . . . . . 152,869 fangs (including 113,114 fangs Mukden City extension)
(b) Repairs . . . . . 93,200 fangs.

Platforms extended.

None but Tientsin East down platform had 980 feet wall built to make both sides available.

New Buildings erected.

Chienmen (Peking), Chinese Post Office (2 stories)	sq. ft.	5,856
Tientsin, New Engine Shed including Loco. office, etc.	"	28,038
Chang-kui-chuang, Station building	"	914
Tong-shan Works, Timber drying shed	"	4,000
Tong-shan Works, Painting shop extension	"	9,540
Kaiping, U. S. Army barracks	"	2,203
Wa-li, U. S. " "	"	1,919
Tang-ho, Engine shed and rooms for drivers	"	2,309
Shan-hai-kuan Bridge Works, carpenters shop	"	2,460
Huang-ku-tun, Engine shed extension and accessory buildings	"	10,077
Total sq. ft. of various buildings and quarters erected and extensions made along the line		24,120
	Total sq. ft.	91,436

Signals erected.

Tientsin, Dwarf semaphore.
Tang-ho, Standard semaphore for Chinwangtao branch.
Chienso, 1 Reinforced concrete signal post.
Chu-liu-ho, 4 " " " "

Quarry opened.

Small quarry opened at Shuang-yang-tien and siding laid to it.

Heavy works executed.

Bridge No. 106 (Yang-ho) 350 ft spur built and pitched with waste ashlar and rubble on willow mattresses.
Tientsin, New Engine Shed for 18 engines with necessary tracks, coaling and watering arrangements and yard. Shed is rectangular and has six tracks.
Near Ning-yuan-chow, Pitched dam round village at 113.75 mile.
Between bridges Nos. 222 & 223. Training dam and raising river bank near No. 222 bridge.
Bridge No. 264. Three training spurs.
Chin-chow, new station approach road.
Bridge No. 275, 1 span added.
New bridge No. 58 at Chu-liu-ho built and old No. 58 bridge filled up.
Chin-chow & Yinkow, new roof on engine sheds.
Liu Ho, 46,475 lin. ft. of dams built.
Bridge No. 141, Repairs.
Huang-ku-tun, Engine shed extended 186 ft. 2 tracks with heating and all accessories.
Bridge No. 61, extended 2 spans of 20 ft. (M. D. line).
Bridge No. 61a, 5 spans of 20 ft. built.
Mukden City yard. Earthwork filling.

Foreshore protection.

Siku river bank repaired and pitched for about 1,000 ft.
Yinkow, 367.41 fangs of rubble used.

Wharfage. Nothing new, but 19,000 sq. ft. of decking renewed on Tongku Wharf.

Painting executed for maintenance.

115 Bridges painted.
Tientsin, Tongshan & Pei-tai-ho Overbridges.
Tientsin Central Station Subway.
Tangho Turntable.
Yinkow ferry boat and pontoons.
Staff quarters (about 30) painted.
Shan-hai-kuan station buildings.
Sar-hou-sou, Ning-yuan-chow, Lien-shan & Chin-chow station roofs & water tanks.
All signal posts, notice, nameboards etc.

Water supply works.

Tientsin, New main to tank & hydrant at East end, 570 ft. of 4" and 485 ft. of 1½" pipe.
New Loco. shed & yard. One 5600 gall. tank, one 4300 gall. tank, one water crane, 110 ft of 3" pipe, 562 ft. of 3", 35 ft. of 2" and 20 ft. of 1".
Carriage washing hydrant. 460 ft. of 2" pipe.
Hsü-ko-chuang, New steam pump and 180 ft. of 4" pipe.
Chang-li, Pipe connection made to admit pumping direct from Yin-ma-ho to subsidiary tank at Chang-li station.
Hsiao-ling-ho (near Chinchow) New pump foundations built.
Kao-pan-tze, 1 new 6" borehole added.

Works in progress.

Tientsin. Engine shed & turntable completion. Sidings at East end of station.
Mukden City Yard. Earthwork filling.

Accidents during the year.

Employees killed	6.	Injured	0.
Passengers killed	17.	Injured	24.
Trespassers killed	49.	Injured	25.
Passengers drowned	1.		
Collisions while shunting in station yards			5.
Engine & Car derailments in station yards			80.
Train derailed bet. Lei-chuang & Lanchow during Lanchow uprising			1.
Engine derailed on Chang-li weir during flood			1.
Train separated			4.
Train on fire			3.
Bridges blown up			2.

On February 3rd. No. 73 train was wrecked at No. 141 bridge, 11 passengers were killed and many injured. The girders of the Bridge were evidently blown up by dynamite, one span was practically destroyed and another so badly damaged that it had to be changed.

On Sept. 15th the rails and girders of No. 51 bridge, on the Hsinminfu line, were damaged by explosion, a piece of rail 4 ft. long was blown away some distance, and the up flange of girder badly bent. The damage was not discovered and No. 74 train passed over without either engine or cars being derailed, after which the bridge was repaired.

Rainfall & floods.

General rainfall averaged 25.30 inches, but at Fengtai 6.75 inches fell in 10 hours on May 17.
10.00 inches „ „ 28 hours on July 5 & 6.
9.25 inches „ „ 50 hours on July 21, 22 & 23. There was no serious damage done by floods on the Railway excepting between Tientsin and Peking.

At the end of July the three rivers Lung Ho, Feng Ho and Pei-Ho crossing the line between Yangtsun and Lofa were all in heavy flood and broke their banks. At the same time the Hun Ho, running roughly parallel to the line, broke its bank and swelled the Lung Ho and Feng Ho. The country between Tientsin Central and Lo-fa was practically all under water.

Water was flowing over rail to a depth of two inches for a half mile and over the ballast for another mile but was prevented from cutting out the bank. On July 31st when the flood was about at its highest a strong gale got up and a similar state of affairs occurred a few days later. These two gales did a great amount of damage to the pitched bank between Yang-tsun and Chang-chuang, but stone was obtained in time and thrown down to prevent the track being undermined. The flood was the highest experienced at this part of the line since it was built in 1896.

Bridge Works, Shanhaikuan.

The tonnage of work turned out was as follows:—

Girders:—

3.	50 ft.	Clear Deck Spans	Tons	63.	0.	0.	0.
35.	45 ft.	„ „ „		513.	7.	2.	1.
9.	30 ft.	„ „ „		73.	9.	3.	27.
1.	20 ft.	„ „ „		4.	1.	0	24.
6.	20 ft.	„ Differdange		19.	19.	0.	23.
			Total tons	673.	17.	3.	19.

Special Work, Tanks etc:—

1.	16' × 7' × 8' Water tank	Tons	2.	13.	0.	8.
8.	4' × 4' × 2' Steel oil tanks for K. P. T. Workshop.		2.	11.	0.	24
8.	4' × 4' × 4' Steel oil tanks for K. P. T. Workshop.		3.	14.	0.	6.
2.	8' × 4' × 4' Steel oil tanks for K. P. T. Workshop.		1.	13.	1.	9.
1.	247' × 30' Steel Octroi shed erected at C. M. station.		43.	11.	3.	4.
2.	55' 0" Steel engine turntables, one for Tung-Pu Railway and one for T. S. new engine shed		45.	5.	3.	4.
		Total Tons	99.	9.	0.	27.

Miscellaneous:—

Ironwork to the extent of	Tons	74.	4.	0.	0.
TOTAL TONNAGE of Ironwork done	Tons	847.	11.	0.	18.

Foundry:—

The Foundry has been fully employed upon castings for points and crossings, signal post fittings and turntable centres and miscellaneous castings for maintenance and construction. Iron castings to the extent of	Tons	119.	16.	1.	20.
Brass castings to the extent of		1.	14.	2.	13.
	Total tons	121.	11.	0.	5.

New Machinery erected:—

One new sliding, surfacing and screw cutting gap bed Lathe, 11" centre × 18" gap bed, erected in Fitting Shop.

GENERAL REPORT OF WORK CARRIED OUT BY LOCOMOTIVE AND CARRIAGE WORKS.

Locomotives.

General overhaul	47.
Repaired at Kao-Pan-Tze	15.
New Boilers constructed for renewals	6.
New Boilers under construction	9.
New fireboxes put in	8.
Half sides put in	16.
New firebox tube plates	13.
New tube plates smoke box	2.
New back plates put in	4.
New sets of tubes put in	23.
Boilers withdrawn from service	10.
Tenders repaired at Tongshan Works	38.
Tenders repaired at Kao-Pan-Tze	13.

Steamers.

Ferry boat, s.s. "Liaotung" engines and boilers overhauled.

Coach and Car Repairs.

	No. of Cars sent in for repairs		
	Freight	Passenger	Brake Vans
At Tongshan Works	1253	125	18
At Kaopantze Works	776	60	36
Total	2029	185	54

Note:—At the Running sheds 12,138 minor repairs were effected to Cars, and Axle Boxes of 22,865 cars were repacked.

Rolling Stock Completed.

Passenger stock.		
	First class Drawing room cars	5.
	First class Sleepers	3.
	First class Diner	1.
	Second class Sleepers	1.
Freight stock.		
	20—ton Covered Goods	50.
	30—ton High side	50.
	24—ton High side (mounted on old spare bogies)	15.

Rolling Stock Under Construction.

Passenger stock.		
	First class	6.
	Postal vans	4.
	Kitchen car	1.
	First class Sleeper	1.
	Kitchen and 2nd Diner	1.
Locomotives.		
	19" Moguls	6.
Tenders.		
	Eight wheel Bogie Tenders	4.

Improvement to Rolling Stock.

Freight stock.		
	Wagons fitted with Coupler locking pins lifting gear	9.
	Wagons converted from 20 ton to 24 ton High side	8.
	30 ton freight cars 6' doors altered to 4' ½	132.
Passenger stock.		
	Coaches fitted with Electric light	3.
	Coaches fitted with Westinghouse air Brake equipment	2.
	Coaches (3rd class) fitted with seats and baggage racks	7.
	Coaches (2nd class) fitted with piping for steam heating	2.
	Coaches (1st class) fitted with new type of berth	2.
	Coaches (1st class) fitted with Stones Louvre ventilators	1.
	Coaches (1st class) fitted with Buffet	1.
	Coaches (private car) fitted with double roof	1.
	Coaches (private car) rebuilt	1.
	Coach frames fitted with new ends, end platforms enclosed, and vestibules fitted	3.
	Baggage and Brake vans mail compartments added, and vans newly equipped with Engine Dynamo battery	2.
Engines, Tenders.		
	Fitted with Westinghouse air Brakes	3.
	Fitted with Westinghouse Train heating apparatus	19.

Rolling Stock Withdrawn from Service.

Condemned.		
	Private car	1.
	Brake Van	1.
	20-ton pony cars	3.
	20-ton Covered Goods	1.

Wrecked at Bridge 141. O. W.

10-ton Coal cars	1.
12-ton Coal cars	3.
20-ton Pony cars	2.
24-ton High side	1.
30-ton Covered Goods	1.
20-ton High side	1.
Eight wheel Bogie tender	1.

Sold to Foreign Lines.

Engine No. 21.	1.
Tender No. 53.	1.

Rolling Stock Completed for other Railways.

Kirin Railway.

17" cylinder mogul Locomotive 2-6-0 type 17" × 24" Drivers 4' 6"	1.
Bogie tender	1.

New Rolling Stock now in Progress of Construction for Foreign Lines & Others

Kalgan Railway.

30-ton High side cars	120.
10-ton Coal cars	20.
4 wheel Brake vans	5.

Tao-Ching Railway.

30-ton High side cars. (Steel Bodies & frames) main parts of Bogies supplied by Tao-Ching Railway	100.

Asiatic Petroleum Co.

30 ton Oil tanks	7.

Varnishing and Painting.

Locomotives	25.
Tenders	18.
Coaches	72.
Brake vans	22.
Freight	1265.

Foundry Output.

Iron Castings	490.5 tons.
Brass Castings	56 tons.

Average Number of Employees.

	1911	1912
Tongshan Works	2,190	2,568
Kao Pan Tze Shops	291	326
Locomotive sheds	1,571	1,614
Total	4,052	4,508

Rolling Stock Equipment at 31st December 1912.

		No. of Vehicles	Tonnage.	Axles.
Freight Stock				
10 Ton Capacity:—				
	Power Vans	6	60	
	Coal Cars	271	2710	
	Water Tanks	7	70	
	Pig Cars	7	70	
12 Ton Capacity:—				
	Coal Cars	469	5628	
	Pony Cars	38	456	
15 Ton Capacity:—				
	Ballast Cars	29	435	
20 Ton Capacity:—				
	Flat Cars	74	1480	
	Ballast Cars	258	5160	
	High Sided	816	16320	
	Covered Goods	107	2140	
24 Ton Capacity:—				
	Flat Cars	1	24	
	Ballast Cars	16	384	
	High Sided	156	3744	
30 Ton Capacity:—				
	Ballast Cars	38	1140	
	High Sided	462	13860	
	Covered Goods	165	4950	
	Water Tanks	3	90	
	Oil Tanks	49	1470	
	Timber	2	60	
	Total Cars	2.974	Tons 60.251	
Passenger Stock.				
	Imperial	3		12
	State	3		12
	Private	13		40
	Directors	1		4
	1st Class	28		112
	2nd Class	39		156
	3rd Class	100		400
	Composite	17		68
	Ordinary Buffet	7		28
	Kitchen	1		4
Train de Luxe Equipment	1st Class Buffet	3		12
	2nd Class Buffet	2		8
	1st Class Sleepers	5		20
	2nd Class Sleepers	3		12
	1st Class Saloon	2		8
	2nd Class Saloon	2		8
	Heating and Lighting	4		16
	Baggage and Brake	5		20
Brake Vans.				
	4 Wheel	49		98
	8 Wheel	15		60
	Total Cars	302		Axles 1098
Miscellaneous.				
	Wrecking Cars	9		—

Engines.

Passenger Class:—				
4—4—0	Cylinder	17" × 24"	4	
4—4—0	Cylinder	19" × 24"	3	
4—6—0	Cylinder	18" × 24"	13	20
Freight Class:—				
2—6—0	Cylinder	17" × 24"	43	
2—6—0	Cylinder	19" × 24"	14	
2—6—0	Cylinder	16" × 24"	27	84
Shunters:—				
2—6—2	Cylinder	14" × 24"	13	
0—6—0	Cylinder	16" × 24"	4	
2—6—4	Cylinder	17" × 24"	2	19
		Total Engines		128

Tenders.

4 Wheel	3
8 Wheel	83
6 Wheel	26
Total Tenders	112

Comparative Table of Rolling Stock.

	1911	1912
Passenger Cars and Brake Vans	294	302
No. of Axles	1068	1098
Freight wagons of all classes	2868	2974
Tonnage capacity	57831	60555
Locomotives of all classes	124	123
Weight in Tons	5667	

Note:— Four Freight cars added to list hitherto not on register.

New Machinery Erected.

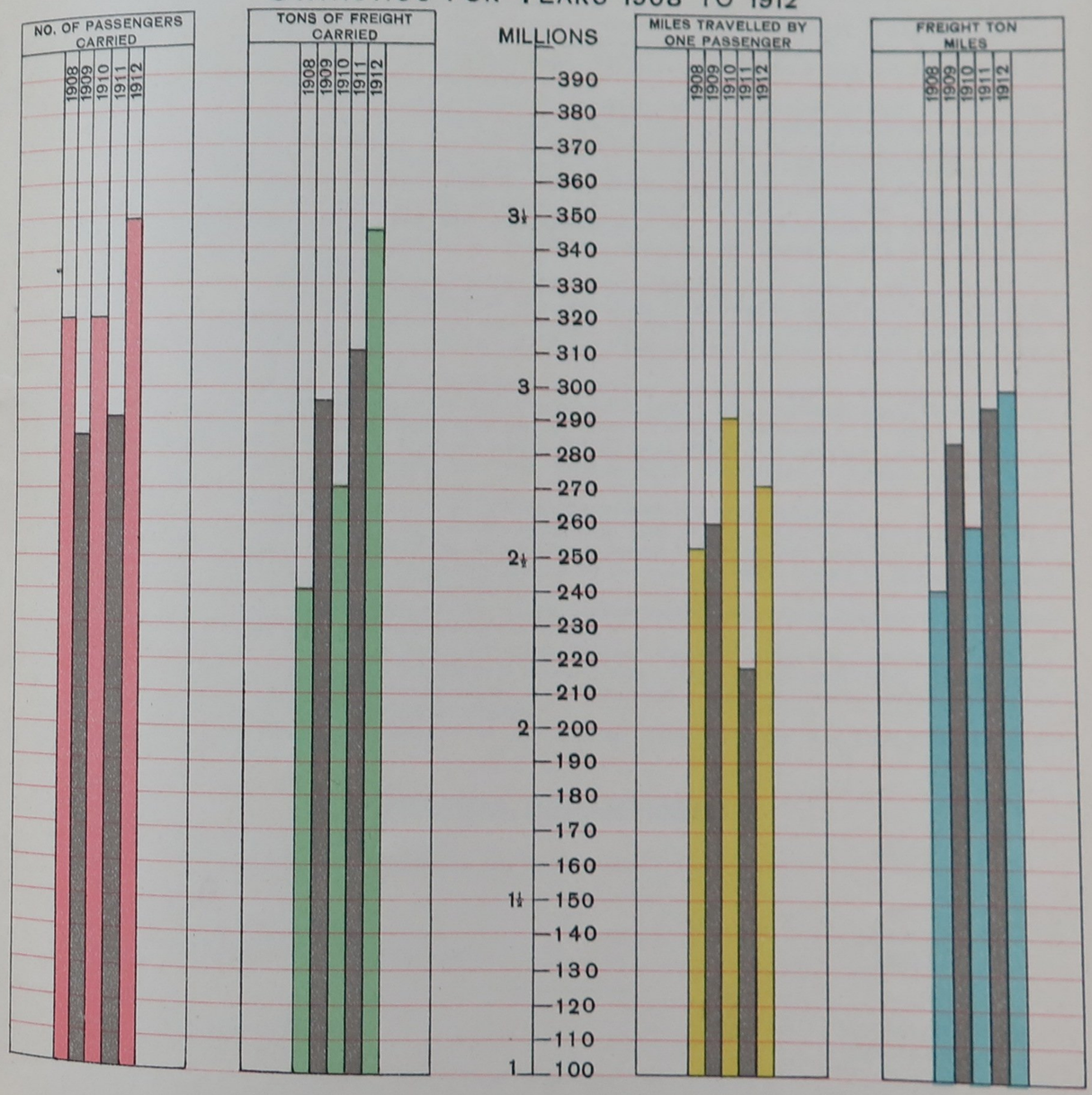
Locomotive and Car Works:—

Reserve steam Engine and Dynamo for Electric power house.
Pneumatic moulding machine for Foundry.
Block for the manufacture of pressed steel Bogies.
Pneumatic plant and piping for car bogie and frame rivetting.
Two sliding. surfacing and screw cutting lathes.
One Bolt screwing and nut tapping machine.
Two wood trimmers, and saw sharpener.
One mortising and Boring machine.

General.

Vertical Boiler 4' 9" Dia. × 12' made for K. P. E. shops.
All shops Tongshan works whitewashed.
Erecting and Boiler Shops repainted.
Timber columns of Loco Works Smith shop replaced by steel columns.
Depth of South well increased by 15'.

Peking Mudken Railway
Statistics for Years 1908 to 1912



Remarks.

Owing to the unsettled state of the country early in the year, and the large numbre of unemployed Southerners in Tongshan in poor circumstances, who showed no signs of moving to other places owing among other reasons to their being no or very little demand for labour anywhere in China, it was decided to reengage these men in the railway works and so avoid the risks of local disturbance. To find these superflous hands work, six 19" mogul engines were put in hand with what material was in stock. Boiler tube fencing, electric light standards, and other work not calling for any great degree of skill undertaken.

Delay was caused to a lot of work put in hand during the year, owing to the unusual length of time taken to fill indents calling for material from England attributable to the succession of strikes in that country.

As regards locomotives the six mentioned above were put in hand two of which are to be fitted with the Phoenix superheater. Owing to the delay in receiving material, it is improbable the first of these will be on the rails before June the others following at intervals of a month. A shunting engine in every possible respect similar to the standard light mogul engine was ordered from the North British Locomotive Co. It is hoped that this engine may be adopted as the standard heavy shunter required by the line. The fitting of train engines and 74 class with train heating gear was proceeded with, so before long the boilers carried for this purpose in the Brake vans may be dispensed with and the space utilized for baggage.

Want of power was felt during the exceptionally heavy traffic in the autumn.

The boilers of 58 and 74 class and those of six engines of 15 class will now have to be renewed, as these engines pass through the Shops and provision is being made for this. Boiler renewal and spares will keep the Boiler Shop constantly employed during the next three or four years.

With reference to coaches it having been decided to improve the express between Peking and Tientsin, six third class coaches with teak bodies, battened seats, Westinghouse heating, and Electric light were put in hand. The mail between P. K. and S. H. K. to be improved by seven improved oregon bodies being fitted to third class coaches provided with Westinghouse heating gear and Electric light. These cars to replace those of old design now in service.

Improved electric light fittings for coaches are being introduced.

As regards freight stock construction, little of this work was undertaken. Pressed Steel bogies were successfully manufactured during the year, but have not yet gone into service. The design of frame and body of 30 ton cars was made similar to the cars supplied the Tsin-Pu Railway N.S. from Europe.

A Valiant type of fire engine similar to many in use in English railway Shops was obtained for the protection of the Works.

A pneumatic plant for coach and car frame rivetting and any bogie rivetting necessary, is now being put down in the car works. This it is hoped will reduce costs of work.

The machinery and boilers of the ferry boat "Liaotung" were overhauled, and the necessary repairs and renewals effected.

A tank Locomotive for the Hulutao Harbour Works was erected for them by Kao-Pan-Tze Shops.

TRAFFIC DEPARTMENT.

Train miles run for Revenue	2,273,243
Train miles run for Construction and Maintenance	83,862

Number of Passengers carried	3,495,707
Number of Tons of Freight carried	3,450,393

Passenger Mileage	217,554,996
Ton Mileage	299,419,493
Total "Passenger Ton" Mileage	570,974,489
Average number of men employed under Traffic Manager including Police Force about 1,131	2,836

TELEGRAPH DEPARTMENT.

Length of Wires.

	Miles.
Tungchow and Tungchow Junction	16.65
Chienmen and Yingkow (Double Wires)	1043.50
Tientsin and Shanhaikwan (Single Wire)	175.54
Koupangtzu and Fengtien (Double Wires)	214.50
Hsinminfu and Fengtien (Single Wire)	37.37
Tientsin City and Hsiku	4.00
Tientsin Central and Tientsin East (Six Wires)	16.26
Tientsin and Tongku (Telephone)	27.00
Fengtai and Lookouchiao	3.85
	Miles 1538.67

Electric Staff Wires.

Chienmen and Fengtien and Yingkow	Miles 521.75
Number of Messages sent, Service	188,484
Number of Messages sent, Outside	5,146
	Total 193.630

Average Number of Employees	371
Number of Telegraph Stations	77
Number of Recorders in use	123
Number of Electric Staff Stations	70
Number of Electric Staff and Tablet Apparatus	138

During the year, telegraph wire between T.S. and S.H.K. erected on the Ry. Telegraph poles has been taken over by purchase from the Chinese Govt. Telegraphs.

CHINESE GOVERNMENT RAILWAYS
PEKING-MUKDEN LINE.
AND CONNECTIONS

PEKING

Kalgan Line
Te-sheng Men
An-ting Men
Shichih Men
Tung-chih Men
Pingtse Men
Ch'i-hua Men
Hsi-pien Men
Tungpien Men
Peking-Hankow Ry. Station
Peking-Mukden Ry. Station
Changyi Men
Shuo-wo Men
Nan-hsi Men
Kung-ting Men
Peking-Mukden Line
Ching-ts'a Men

Hsihao Ho
Chengchiatun (chou)
Chinese Eastern Railway
TO HARBIN
Kwangchengtze (CHANGCHUN)
Mongolian Plateau
Sharamuren or Huang Ho
South Manchuria Railway
Changtufu
Fakumen
Coal
HSINMINFU
Paichipu
Liaoyangho
Lichiawupu
Tahushan
Hsintungtien
Masanchia
Coal
Fushun
MUKDEN
Chaoyangfu
Chihsintsun
Tchai
Yangchuantzu
Shihshanchan
Talingho
Shuangtangtien
KOUPANGTZU
Huchiawopu
Shuangtaitze
Tawa
Chinchoufu
Tienchuangtai
Weichiakou
NEWCHWANG
LIAOYANG
Coal
Coal
Nuerhho
Kaochiao
Lienshan
Ningyuanchow
YINGKOU
Tashihchao
Fenghwangcheng
Yalu River
Antung
Wiju
Korean Railway
GULF OF LIAO-TUNG
Tungshanchuang
Shihouso
Suichunghsien
Huangti
Coal
SHANHAIKUAN
Tangho
Chienwei
Chienso
Chinwangtao
Peitaiho
Liushouying
Fuchowling
Putantien
Kinchow
Dairen (Dalny)
Port Arthur
Luan Ho
Yangpingtu
Kuyeh
Kaiping
Coal
Tangshan
Hsukochuang
Tangfang
Tienchuang
Lutai
Hanku
Peitang
TANGKU
Taku
GULF OF PECHILI
Anshan
Chaoli
Lanchow
Shihmen
Leichuang
Chengtehfu (Jehol)
Pingchuan
The Great Wall
Kalgan
Hsuanhuafu
Peking Kalgan Railway
Chang-ping-chow
Nankow
Shaho
Chinho
PEKING
TUNGCHOU
Coal
Yungtingmen
Fengtai
Huangtsun
Anting
Wanchuang
Langfang
Laofa
Changchuang
Yangtsun
Peisang
TIENTSIN
Chunliangcheng
Hsiwho
Chating
Chochow
Yiehow
Pao-tingfu
Peking-Hankow Railway
Hsihu
To Pukow
Tientsin-Pukow Railway